PRE-APPEAL BRIEF REQUEST FOR REVIEW	Docket Number (Optional) 047092.00064
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed Name _____	Application Number: 10/732,745 Filed: December 11, 2003
	First Named Inventor: Esa MALKAMAKI, *et al.*
	Art Unit: 2112 Examiner: Samir Wadie RIZK

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
   Note: No more than five (5) pages may be provided.

I am the

☐   Applicant/Inventor.

☐   assignee of record of the entire interest.
    See 37 CFR 3.71. Statement under
    37 CFR 3.73(b) is enclosed

☒   Attorney or agent of record.
    Registration No._____46,621

☐   Attorney or agent acting under 37 CFR 1.34.
    Reg. No. is acting under 37 CFR 1.34 _____

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November 9, 2007
_____
Date

NOTE: Signatures of all of the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐   *Total of _____forms are submitted.

In re the Application of:

Esa MALKAMAKI, *et al.*   Art Unit: 2112

Application No.: 10/732,745   Examiner: Samir Wadie RIZK

Filed: December 11, 2003   Attorney Dkt. No.: 047092.00064

For: REDUNDANCY SELECTION STRATEGY SCHEME

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450   November 9, 2007

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette Notice, Applicants hereby submit this Pre-Appeal Brief Request for Review of the final rejections of claims 1-30 in the above identified application. Claims 1-30 were finally rejected in the Office Action dated July 10, 2007. Applicants filed a Response to the Final Office Action on October 1, 2007, and the Office issued an Advisory Action dated October 29, 2007 maintaining the final rejections of claims 1-30. Applicants hereby appeal these rejections and submit this Pre-Appeal Brief Request for Review.

Claims 1, 2, 7-17, 21-23, and 25-30 were rejected under 35 USC §102(e) as being anticipated by Laroia (US Publication No. 2004/0228320). The Office Action took the position that Laroia describes all the recitations of independent claims 1, 16, 23, 28, 29, and 30 and related dependent claims. Applicants' respectfully traverse this rejection. Applicants respectfully submit that this rejection contains at least the clear error of failing to disclose or suggest the elements of the presently pending claims, and should be withdrawn. As will be discussed below, the Office Action is making a clearly erroneous analysis of the information contained in Laroia.

The subject matter of independent claims 1, 16, 23, 28, 29, and 30 is discussed in detail applicants' response filed on October 1, 2007, and will not be repeated here. However,

Applicants submit that the claimed invention provides novel and useful methods and devices for predetermined <u>sequence of redundancy parameters</u> is provided, from which one sequence is selected and information indicating the selected sequence is transmitted to a terminal device. Therefore, a network operator is able to select redundancy version strategies to be used by the terminal device, while little signaling is required between the network and the terminal device.

In contrast thereto, *Laroia* generally describes a repeat request method and apparatus in which different NAK signals are used to indicate different relative levels of success in regard to an unsuccessful attempt to decode a received signal. An ACK signal is used in the case of successful decoding. FIG. 5 of *Laroia* illustrates an example of using incremental redundant codes, e.g., incremental redundant LDPC codes, in accordance with the invention. As shown in FIG. 5 of *Laroia*, in a first traffic segment 520, the information bits 510 and the first part of the parity check bits 514 are transmitted. <u>See</u> paragraphs [0078]-[0080]. The combination of the coded information bits 510 and the first part 514 of the parity check bits form a first set of encoded information which is transmitted. The remaining parity check bits, the second through fourth parity check bits, form a set of redundant information, which is stored and used in the event of a NAK.

In essence, *Laroia* provides that if the receiver 522 with its decoder 524 cannot decode the information bits 510 and sends a NAK 526, the transmitter 502 sends the second part of the parity check bits 516 in a second traffic segment 528. The receiver 522 uses both the received segments 520, 528 in the decoding process in an attempt to decode the information bits 510. If the receiver 522 still cannot decode the information bits 510 as evidenced by the receiving device 522 sending another NAK 530 in an acknowledgement segment corresponding to the second traffic segment 528. Then, the transmitter 502 transmits the third part of the parity check bits 518 in a third traffic segment 532. The receiver 522 should use some or all of the received segments, e.g., segments 520, 528, 532 to decode the information bits 510. If the receiver 522 decodes the information bits 510 successfully at some time, then the transmitter may discard the unused parity check bits.

Therefore, *Laroia* provides a <u>single</u> predetermined sequence (from element 514 to element 519 of FIG. 5) of redundancy bits (514, 516, 518, 519) and <u>not a set of predetermined sequences</u> as recited in independent claim 1. <u>See</u>, <u>for instance</u>, FIG. 5 and paragraphs [0078]

and [0080] of *Laroia*. The NAK signal level selection described in *Laroia* <u>does not regard the selection of a sequence of redundancy bits</u> amongst a set of predetermined sequences of redundancy bits, but <u>the selection of the amount of redundant information to be transmitted following receipt of a NAK signal</u>. See, for instance, paragraphs [0016] and [0018] of *Laroia*.

Clearly, *Laroia* fails to teach or suggest, at least, "selecting at least one of said set of predetermined sequences," as recited in independent claim 1. As further provided in independent claim 1, based on the selected at least one sequence providing said redundancy parameters transmitted to a terminal device, the terminal device performs an automatic repeat request processing. There is no selection of at least one of the set of predetermined sequences in *Laroia*. Instead, *Laroia* provides a <u>successive transmission</u> of redundancy parameters until reaching a successful decoding. *Laroia* appears to provide a block of redundant bits 512 including a first part 514, a second part 516, a third part 518, and a fourth part 519. The first part of the parity check bits 514 is transmitted in combination with the information bits 510. Then, each remaining part of the parity check bits is <u>successively</u> transmitted in the event of a NAK whenever the receiver 522 is unable to decode the information bits 510 associated with the transmitted parity check bits.

Therefore, the essence of the description of *Laroia* is to achieve an efficient automatic repeat request in a multiple access wireless communications system by providing <u>a large block of parity check bits 512</u> associated with the big parity check matrix used by the transmitter (<u>See</u> *Laroia*: page 9, lines 8-10).

The configuration proposed by *Laroia* is different from the recitations of the claimed invention wherein the transmission of a selected predetermined sequence amongst a set of predetermined sequences of redundancy parameters differs from the successive transmission of redundancy parameters until reaching a successful decoding.

In view of the above, the automatic repeat request method and apparatus disclosed in *Laroia* do not anticipate the selection and the transmission of the selected at least one sequence to provide redundancy parameters claimed in the present set of claims.

Because independent claims 16, 23, and 28-30 include similar claim features as those recited in independent claim 1, although of different scope, and because the Office Action refers to similar portions of the cited references to reject independent claims 16, 23, and 28-30, the

arguments presented above supporting the patentability of independent claim 1 are incorporated herein to support the patentability of independent claims 16, 23, and 28-30. Because *Laroia* would fail to teach or suggest all the recitations of independent claims 1, 16, 23, and 28-30 and related dependent claims, such deficiencies in *Laroia* constitute clear error.

Claims 3-6, 18-20, and 24 were rejected under 35 USC §103(a) as being obvious in view of Laroia and AAPA (Applicant Admitted Prior Art (paragraph [0003]). The Office Action took the position that Laroia and AAPA disclose all the aspects of dependent claims 3-6, 18-20, and 24. Applicants respectfully submit that this rejection contains at least the clear error of failing to disclose or suggest the elements of the presently pending claims, and should be withdrawn. As will be discussed below, the Office Action is making a clearly erroneous analysis of the information contained in Laroia and AAPA.

Dependent claims 3-6 depend from independent claim 1, dependent claims 18-20 depend from independent claim 29, and dependent claims 24 depend from independent claim 30. Because the combination of *Laroia* and *AAPA* must teach, individually or combined, all the recitations of the base claim and any intervening claims of dependent claims 3-6, 18-20, and 24, the arguments presented above supporting the patentability of independent claims 1, 29, and 30 over *Laroia* are incorporated herein.

AAPA generally describes uplink packet data of Wideband Code Division Multiple Access (WCDMA) systems covering radio transmission of data from a mobile unit or mobile terminal, called User Equipment (UE) in third generation terminology, to a fixed station, called Node B in third generation terminology. Here, the case of erroneous reception of data packets is handled by Radio Link Control (RLC) signaling. See paragraph [0003]. However, *AAPA* further provides in paragraph [0003] that such configuration is disadvantageous in that a retransmission will require relatively large buffers and will introduce significant delays. One of the technologies under investigation in connection with enhanced uplink data is fast H-ARQ, where the packet retransmissions are handled at either physical layer or Media Access Control (MAC) layer and, thus, in principle at the Node B instead of the Radio Network Controller (RNC).

However, *AAPA* does not cure the deficiencies of *Laroia*. Similarly to *Laroia*, *AAPA* is silent as to teaching or suggesting, at least, "selecting at least one of said set of predetermined

sequences, and transmitting information indicating the selected at least one sequence to a terminal device," as recited in independent claim 1 and similarly recited in independent claims 29 and 30.

Because a combination of *Laroia* and *AAPA* would fail to teach or suggest all the recitations of independent claims 1, 29, and 30 and related dependent claims, such deficiencies in *Laroia* and *AAPA* constitute clear error.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: PTO/SB/33 Form
Notice of Appeal
Petition for Extension of Time – 1 Month
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